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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,077	01/16/2004	Christian A.J. Lutkemeyer	13433US07	1891

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EXAMINER

LAM, TUAN THIEU

ART UNIT PAPER NUMBER

2816

DATE MAILED: 07/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/760,077

Applicant(s)

LUTKEMEYER, CHRISTIAN A.J.

Examiner

Tuan T. Lam

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 and 30-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 9 and 30-32 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This is a response to the preliminary amendment filed 1/16/2004. Claims 1-9 and 30-32 are pending and are under examination.

#### ***Claim Rejections - 35 USC § 112***

1. Claims 1-9 and 30-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the recitation of "adapted to" in line 6 is indefinite because it is not a positive recitation. It is suggested to change "adapted to receive" to --for receiving--.

In claim 30, the recitation of "comparing a phase of the first clock with a phase of the second clock signal" is indefinite because it is misdescriptive. Figure 1 shows the phase comparator for comparing the phase of the clock signals of the clock tree 26 and 28. The phase comparator does not compare the phase of the first clock signal and the modified first clock signal (second clock signal) as claimed. Correction is required.

Claims 2-9 and 31-32 are indefinite because of the technical deficiencies of claims 1 and 30.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Mar (USP 5,900,752). Figure 3 of Mar shows a system for compensating of phase difference between first and second clock signals (60, 62), the first clock signal driving a first circuit that is powered by a first supply voltage (first circuit, not shown, receives 2.5 volts clock signal is powered by 2.5 volts power supply), and the second clock signal driving a second circuit that is powered by a second supply voltage (second circuit, not shown, receives 3.3 volts clock is powered by 3.3 volts power supply), the circuit comprising at least one phase comparator (58), one delay adjuster (56) as called for in claim 1.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-6 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mar (USP 5,900,752) in view of Sim (USP 6,072,347). Figure 3 of Mar shows a system for compensating of phase difference between first and second clock signals (60, 62), the first clock signal driving a first circuit that is powered by a first supply voltage (first circuit, not shown, receives 2.5 volts clock signal is powered by 2.5 volts power supply), and the second clock signal driving a second circuit that is powered by a second supply voltage (second circuit, not shown, receives 3.3 volts clock is powered by 3.3 volts power supply), the circuit comprising at least one phase comparator (58), one delay adjuster (56). What not shown in Mar is the detailed

Art Unit: 2816

structures of the delay adjuster and the phase comparator as called for in claims 2, 3. Sim shows a phase locked loop comprising a phase comparator having a rising edge phase comparator and a falling edge phase comparator (10, 20), and delay adjuster (3, details are further shown in figure 5). The phase locked loop of Sim provide an accurate phase synchronization. Therefore, it would have been obvious to a person skilled in the art at the time of the invention was made to replace Mar's variable delay and delay detector with Sim's phase locked loop for the purpose of providing an accurate output signals thus preventing an erroneous operation.

Regarding claims 4 and 5, the combination of Mar and Sim shows the rising edge and falling edge of the first signal are delayed in responsive to the output of the phase comparator as shown in figure 5.

Regarding claim 6, the plurality of buffers are seen as inverters I61-I64 of Sim's figure 6.

Regarding claim 8, a power supply (not shown) for providing a plurality of supply voltages 3.3 volts and 2.5 volts associated with the high and low logic levels of the first and second signals.

Regarding claim 9, the first and second clock signals are derived from the source (not shown) that generates the RCLK of Sim's figure 6.

### ***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

Art Unit: 2816

provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 30-32 are rejected under the judicially created doctrine of double patenting over claims 1-3 of U. S. Patent No. 6,693,475 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows:

Regarding claim 30 of the present invention, claim 1 of USP 6,693,475 recites modifying a signal level of first clock signal (column 11, lines 1-4), comparing phase of first and second clock signals (column 11, lines 5-8), and delaying the first signal (column 11, line 9-11).

Regarding claim 31 of the present invention, claim 2 of USP 6,693,475 recites rising edges and falling edges comparison (column 11, lines 14-20, column 12, lines 1-5), delaying step further delaying rising edges and falling edges of the first clock signal (column 12, lines 8-10).

Regarding claim 32 of the present invention, claim 3 of USP 6,693,475 recites selectively routing the first clock signal through at least one of a plurality of delay elements (column 12, lines 1-4)

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

*Allowable Subject Matter*

1. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

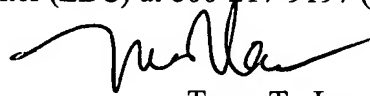
*Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Lam whose telephone number is 571-272-1744. The examiner can normally be reached on Monday to Friday (7:30 am to 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TIMOTHY P CALLAHAN can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tuan T. Lam  
Primary Examiner  
Art Unit 2816

7/19/2004